

1. (Amended) An optical pickup apparatus [for reproducing information from an optical information recording medium or for recording information onto an optical information recording medium], comprising:
  - a first light source for emitting a first light flux having a first wavelength for reproducing or recording information from or onto a first optical information recording medium having a first information recording plane;
  - a second light source for emitting a second light flux having a second wavelength for reproducing or recording information from or onto a second optical information recording medium having a second information recording plane, the first wavelength being different from the second wavelength;
  - a converging optical system having [an optical axis] an objective lens and a diffractive portion [,] ; and
  - a photo detector for receiving light flux reflected from the first information recording plane or the second information recording plane[.]

wherein first and second predetermined numerical apertures for the first light flux and the second light flux at an image side of the objective lens are provided for the first and second optical information recording media respectively, and the first predetermined numerical aperture for the first light flux is different from the second numerical aperture for the second light flux.

wherein in case that the first light flux passes through the diffractive portion to generate at least one diffracted ray, an amount of first n-th ordered diffracted ray of the

first light flux is greater than that of any other ordered diffracted ray of the first light flux, and in case that the second light flux passes through the diffractive portion to generate at least one diffracted ray, an amount of second n-th ordered diffracted ray of the second light flux is greater than that of any other ordered diffracted ray of the second light flux, where n stands for an integer other than zero.

wherein the converging optical system converges the n-th ordered diffracted ray of the first light flux on the first information recording plane of the first optical information recording medium through the first transparent substrate so as to reproduce or record information from or onto the first optical information recording medium, and

wherein the converging optical system converges the n-th ordered diffracted ray of the second light flux on the second information recording plane of the second optical information recording medium through the second transparent substrate so as to reproduce or record information from or onto the second optical information recording medium.

In claim 4, line 1, change "claim 3" to --claim 1--.

In claim 5, line 1, change "claim 2" to --claim 1--.

77. (Amended) An optical element for use in an optical pickup apparatus for reproducing or recording information from or onto an optical information recording medium [or for recording information onto an optical information recording medium], the optical element comprising:

an optical axis [.] ; and

a diffractive portion,

wherein in case that [the] a first light flux having a first wavelength for  
reproducing or recording information from or onto a first optical information recording  
medium passes through the diffractive portion to generate at least one diffracted ray, an  
amount of first n-th ordered diffracted ray of the first light flux is greater than that of any  
other ordered diffracted ray of the first light flux, and in case that [the] a second light flux  
[whose wavelength is different from that of the first light flux] having a second  
wavelength for reproducing or recording information from or onto a second optical  
information recording medium passes through the diffractive portion to generate at least  
one diffracted ray, an amount of second n-th ordered diffracted ray of the second light  
flux is greater than that of any other ordered diffracted ray of the second light flux, the  
first wavelength being different from the second wavelength, and [wherein] a difference  
in wavelength between the first light flux and the second light flux [is] being 80 nm to  
400nm [and] , wherein n stands for an integer other than zero,

wherein first and second predetermined numerical apertures for the first light flux  
and the second light flux at an image side of the objective lens are provided for the first  
and second optical information recording media respectively, and the first  
predetermined numerical aperture for the first light flux is different from the second  
numerical aperture for the second light flux.

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wherein the optical element is capable of converging the first n-th ordered diffracted ray of the first light flux which passes through the diffractive portion on a first information recording plane of the first optical information recording medium so as to reproduce or record information from or onto the first optical information recording medium, and

wherein the optical element is capable of converging the second n-th ordered diffracted ray of the second light flux which passes through the diffractive portion on a second information recording plane of the second optical information recording medium so as to reproduce or record information from or onto the second optical information recording medium.

In claim 81, line 1, change "claim 80" to --claim 77--.

In claim 82, line 1, change "claim 79" to --claim 77--.

135. (Amended) An apparatus for reproducing or recording information from or onto an optical information recording medium [or for recording information onto an optical information recording medium], the apparatus comprising [;]:

an optical pickup apparatus, comprising:

a first light source for emitting a first light flux having a first wavelength for reproducing or recording information from or onto a first optical information recording medium;

a second light source for emitting a second light flux having a second wavelength for reproducing or recording information from or onto a second optical information recording medium, the first wavelength being different from the second wavelength; and

a converging optical system having [an optical axis] an objective lens and a diffractive portion[,]; and

a photo detector for receiving light flux reflected from a first information recording plane of the first optical information recording medium or a second information recording plane of the second optical information recording medium, [:]

wherein first and second predetermined numerical apertures for the first light flux and the second light flux at an image side of the objective lens are provided for the first and second optical information recording media respectively, and the first predetermined numerical aperture for the first light flux is different from the second numerical aperture for the second light flux,

wherein in case that the first light flux passes through the diffractive portion to generate at least one diffracted ray an amount of first n-th ordered diffracted ray of the first light flux is greater than that of any other ordered diffracted ray of the first light flux, and in case that the second light flux passes through the diffractive portion to generate at least one diffracted ray an amount of second n-th ordered diffracted ray of the second light flux is greater than that of any other ordered diffracted ray of the second light flux, where n stands for an integer other than zero,

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wherein the converging optical system converges the n-th ordered diffracted ray of the first light flux on the first information recording plane of the first optical information recording medium through the first transparent substrate so as to reproduce or record information from or onto the first optical information recording medium, and

wherein the converging optical system converges the n-th ordered diffracted ray of the second light flux on the second information recording plane of the second optical information recording medium through the second transparent substrate so as to reproduce or record information from or onto the second optical information recording medium.

136. (Amended) A method of reproducing information from or recording information on at least two kinds of optical information recording media by an optical pickup apparatus comprising a first light source, a second light source, a photo detector, and a converging optical system having an objective lens [optical axis] and a diffractive portion, the method comprising the steps of [;] :

emitting a first light flux from the first light source or a second light flux from the second light source, wherein a wavelength of the second light flux is different from a wavelength of the first light flux;

letting the first light flux or the second light flux pass through the diffractive portion to generate at least one diffracted ray of the first light flux or at least one diffracted ray of the second light flux, wherein when an amount of first n-th ordered diffracted ray among the at least one diffracted ray of the first light flux is greater than an

amount of any other ordered diffracted ray of the first light flux, an amount of second n-th ordered diffracted ray among the at least one diffracted ray of the second light flux is greater than an amount of any other ordered diffracted ray of the second light flux [,];

converging, by the converging optical system, the first n-th ordered diffracted ray of the first light flux which passes through the diffractive portion onto a first information recording plane of a first optical information recording medium so as to reproduce or record information from or onto the first optical information recording medium or  
converging, by the converging optical system, the second n-th ordered diffracted ray of the second light flux which passes through the diffractive portion onto a second information recording plane of a second optical information recording medium so as to reproduce or record information from or onto the second optical information recording medium,

wherein first and second predetermined numerical apertures for the first light flux and the second light flux at an image side of the objective lens are provided for the first and second optical information recording media respectively, the first predetermined numerical aperture for the first light flux being different from the second numerical aperture for the second light flux; and [in order for the optical pickup apparatus to record the information onto or reproduce the information from the first information recording plane or the second information recording plane]

detecting, by a photo detector, a first reflected light flux of the converged n-th ordered diffracted light from the first information recording plane or a second reflected